

Date: Monday, 1/7/2008 2:51:06 PM
 User: Kim Johnston

Process Sheet

Customer	: CU-DAR001 Dart Helicopters Services		Drawing Name	: TUBE ASSEMBLY	
Job Number	: 36585		Part Number	: D2003009	
Estimate Number	: 11914		Drawing Number	: UNDER REVIEW	
P.O. Number	:		Project Number	: N/A	
This Issue	1/7/2008	S.O. No. :	Drawing Revision	: B	
Prsht Rev.	: NC		Material	:	
First Issue	1/7/2008	Type :	Due Date	: 1/21/2008	
Previous Run	: 29929		Qty:	5	Um: Each
Written By	:		Comment	: Est B 99.12.21 Re-format EC	
Checked & Approved By	:				
Comment	:				

Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description:								
1.0	M6061T6T0375W035	6061-T6 Tube .375 x.035W								
<p>Comment: Qty.: 1.0884 f(s)/Unit Total : 5.4422 f(s) Cut as per template D2003-007 (12.44" long) D2003-009 Material: 3/8" x 0.035" wall 6061-T6 tubing Batch: M104913 Cut: 12.38" long as per Dwg D2003 Material: M2650-6 Heat sleeve Batch: M103499</p> <p><i>12.44"</i> or <i>12.38"</i> <i>08/01/15</i></p> <p><i>CONFIRM WITH ENG. THE CUT LENGTH OF THE TUBE:</i> <i>REFER TO TEMPLATE.</i></p>										
2.0	M26506	Firesleeve-crkl .375Dia								
<p>Comment: Qty.: 1.0400 f(s)/Unit Total : 5.2000 f(s) Firesleeve-crkl .375Dia</p> <p>M113332 M103499 <i>AS 08/01/15 (X5)</i></p>										
3.0	MS208196D	Sleeve								
<p>Comment: Qty.: 2.1000 Each(s)/Unit Total : 10.5000 Each(s) Pick:</p> <table border="1"> <tr> <th>Qty</th> <th>Part Number</th> <th>Description</th> <th>Batch</th> </tr> <tr> <td>2</td> <td>MS20819-6D</td> <td>Sleeve</td> <td>M103154 <i>AS 08/01/15 (X5)</i></td> </tr> </table>			Qty	Part Number	Description	Batch	2	MS20819-6D	Sleeve	M103154 <i>AS 08/01/15 (X5)</i>
Qty	Part Number	Description	Batch							
2	MS20819-6D	Sleeve	M103154 <i>AS 08/01/15 (X5)</i>							
<p>Job Completion</p> <p><i>88-01-21</i></p>										

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE		By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____
 QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services		Drawing Name: TUBE ASSEMBLY
Job Number: 36585		Part Number: D2003009
Job Number: 		
Seq. #:	Machine Or Operation:	Description :
4.0	AN8186D 	Nut 
Comment: Qty.: 2.0000 Each(s)/Unit Total : 10.0000 Each(s) Pick: Qty Part Number Description Batch 2 AN818-6D Nut <u>M103154</u> JS 08/01/15 (X5)		
5.0	D2182045 	Heat Shrink 4.5" Long 
Comment: Qty.: 1.0000 Each(s)/Unit Total : 5.0000 Each(s) Pick: Not in computer Qty Part Number Description Batch 1 D2182-045 Heat shrink <u>B321864B</u> JS 08/01/15 (X5)		
6.0	SMALL FAB 1 	SMALL & MEDIUM FAB RESOURCE 1 
Comment: SMALL & MEDIUM FAB RESOURCE 1 1-Form tube as per template D2003-009 JS 08/01/15 (X5)		
7.0	QC5 	INSPECT WORK TO CURRENT STEP 
Comment: INSPECT WORK TO CURRENT STEP JS 08/01/15 (X5)		
8.0	SMALL FAB 1 	SMALL & MEDIUM FAB RESOURCE 1 
Comment: SMALL & MEDIUM FAB RESOURCE 1 1-Flair tube as per dwg D2003 2-Assemble as per Dwg D2003 JS 08/01/17 (X5)		
9.0	QC5 	INSPECT WORK TO CURRENT STEP 
Comment: INSPECT WORK TO CURRENT STEP JS 08/01/17 (X5)		
10.0	PACKAGING 1 	PACKAGING RESOURCE #1 
Comment: PACKAGING RESOURCE #1 Identify and Stock Location: ST192 JS 08/01/18 (X5)		

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: D2003-009 PAR #: N/A Fault Category: Prod-Sm. FAB NCR: Yes No DQA: LS Date: 08.01.21
 QA: N/C Closed: PD Date: 08.01.22

NCR: 36585		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
08/01/16	8	Scrap 5 tubing Forgot to install sleeve before flare. Try to fix them before Scrap. P.C. the man in error	<u>LS</u> Initial L	Scrap 5. Re-do stube M 104913 Qty x5	<u>LS</u> 08/01/16	<u>LS</u> 08/01/16	<u>LS</u> 08/01/16	<u>LS</u> 08/01/16

NOTE: Date & initial all entries

Date: Monday, 1/7/2008 11:19:49 AM
User: Kim Johnston

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: TUBE ASSEMBLY

Job Number: 36585

Part Number: D2003009

Job Number:



Seq. #: Machine Or Operation:

Description :

11.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

1/8/08 01.21

Job Completion



1/8/08 01.21

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____
 QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART



DESIGN	DRAWN BY	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA		
CHECKED	APPROVED	DRAWING NO. D2003		
DATE		TITLE		
99.06.08		206 CABIN HEATER TUBE ASSEMBLIES NTS		
A		90.04.09		NEW ISSUE
B		99.06.08		UPDATE PER TEMPLATES; ADD P/N'S; 0.025 TUBING NOW 0.035 (TSR1049)

RELEASED
49.06.04 KC

UNDER REVIEW

06.08.21 LR

Some flat
lengths wrong

08.01.07

SEE NOTE ON SHEET #10.

P/N	TEMPLATE	HEATSLEEVE LENGTH ¹	CUT LENGTH OF TUBE ²	MS20819-8J SLEEVE	AN818-8J NUT	MS20819-8D SLEEVE	AN818-8D NUT	MS20819-6D SLEEVE	AN818-6D NUT	DESC.	MATERIAL ^{4/87}	VENDOR OR SPEC
D2003-001	T2003-001	5.2	6.00					2	2	TUBE ASS'Y	6061-T6 0.375 OD x 0.035 W	WW-T-700/6
D2003-003	T2003-003	7.3	8.12					2	2	TUBE ASS'Y	6061-T6 0.375 OD x 0.035 W	WW-T-700/6
D2003-005	T2003-005	9.8	10.62					2	2	TUBE ASS'Y	6061-T6 0.375 OD x 0.035 W	WW-T-700/6
D2003-007	T2003-007	20.0	19.63					2	2	TUBE ASS'Y	6061-T6 0.375 OD x 0.035 W	WW-T-700/6
D2003-009	T2003-009	12.38	12.44					2	2	TUBE ASS'Y	6061-T6 0.375 OD x 0.035 W	WW-T-700/6
D2003-011	T2003-011	33.31	32.38					2	2	TUBE ASS'Y	6061-T6 0.375 OD x 0.035 W	WW-T-700/6
D2003-013	T2003-013	12.7	13.54					2	2	TUBE ASS'Y	6061-T6 0.375 OD x 0.035 W	WW-T-700/6
D2003-015	T2003-015	17.2	18.00					2	2	TUBE ASS'Y	6061-T6 0.375 OD x 0.035 W	WW-T-700/6
D2003-017	T2003-017	17.0	16.25					2	2	TUBE ASS'Y	6061-T6 0.375 OD x 0.035 W	WW-T-700/6
D2003-019	T2003-019	9.8	10.62		2	2				TUBE ASS'Y	6061-T6 0.500 OD x 0.035 W	WW-T-700/6
D2003-021	T2003-021	N/A	2.25		2	2				TUBE ASS'Y	6061-T6 0.500 OD x 0.035 W	WW-T-700/6
D2003-023	T2003-023	4.5	5.33		2	2				TUBE ASS'Y	6061-T6 0.500 OD x 0.035 W	WW-T-700/6
D2003-025	T2003-025	9.8	10.60		2	2				TUBE ASS'Y	6061-T6 0.500 OD x 0.035 W	WW-T-700/6
D2003-027	T2003-027	7.25	7.38		2	2				TUBE ASS'Y	6061-T6 0.500 OD x 0.035 W	WW-T-700/6
D2003-029	T2003-029	17.2	18.00		2	2				TUBE ASS'Y	6061-T6 0.500 OD x 0.035 W	WW-T-700/6
D2003-031	T2003-031	14.6	15.38	2	2					TUBE ASS'Y	CRES 0.500 OD x 0.035 W	AISI 304
D2003-033	T2003-033	29.75	29.62	2	2					TUBE ASS'Y	CRES 0.500 OD x 0.035 W	AISI 304
D2003-035	T2003-035	24.7	27.00	2	2					TUBE ASS'Y	CRES 0.500 OD x 0.035 W	AISI 304
D2003-037	T2003-037	24.81	23.38	2	2					TUBE ASS'Y	CRES 0.500 OD x 0.035 W	AISI 304
D2003-039	T2003-039	34.0	34.00	2	2					TUBE ASS'Y	CRES 0.500 OD x 0.035 W	AISI 304
D2003-041	T2003-041	6.0	5.88	2	2					TUBE ASS'Y	CRES 0.500 OD x 0.035 W	AISI 304
D2003-043	T2003-043	11.7	10.75	2	2					TUBE ASS'Y	CRES 0.500 OD x 0.035 W	AISI 304
D2003-045	T2003-045	3.50	2.44	2	2					TUBE ASS'Y	CRES 0.500 OD x 0.035 W	AISI 304
D2003-047	T2003-047	5.56	5.56	2	2					TUBE ASS'Y	CRES 0.500 OD x 0.035 W	AISI 304
D2003-049	T2003-049	33.2	34.00	2	2					TUBE ASS'Y	CRES 0.500 OD x 0.035 W	AISI 304
D2003-077	T2003-077	N/A	6.25					1	1	JET	6061-T6 0.375 OD x 0.035 W	WW-T-700/6
D2003-101	T2003-101	13.25	13.13					2	2	TUBE ASS'Y	6061-T6 0.375 OD x 0.035 W	WW-T-600/6
D2003-103	T2003-103	12.38	12.00					2	2	TUBE ASS'Y	6061-T6 0.375 OD x 0.035 W	WW-T-600/6
D2003-105	T2003-105	10.75	10.60					2	2	TUBE ASS'Y	6061-T6 0.375 OD x 0.035 W	WW-T-600/6
D2003-107	T2003-107	12.75	12.25					2	2	TUBE ASS'Y	6061-T6 0.375 OD x 0.035 W	WW-T-600/6
D2003-109	T2003-109	8.25	8.125		2	2				TUBE ASS'Y	6061-T6 0.500 OD x 0.035 W	WW-T-600/6
D2003-111	T2003-111	4.75	4.625		2	2				TUBE ASS'Y	6061-T6 0.500 OD x 0.035 W	WW-T-600/6
D2003-116	T2003-116	4.0								HEATSLEEVE	M2650-20 CRINKLE-SOFT	STRATOFLEX
D2003-120	T2003-120	4.0								HEATSLEEVE	M2650-16 CRINKLE-SOFT	STRATOFLEX
D2003-14	T2003-14	4.0								HEATSLEEVE	M2650-14 CRINKLE-SOFT	STRATOFLEX
D2003-16	T2003-16	4.0								HEATSLEEVE	M2650-16 CRINKLE-SOFT	STRATOFLEX
D2003-205	T2003-205	9.75	9.60					2	2	TUBE ASS'Y	6061-T6 0.375 OD x 0.035 W	WW-T-700/6
D2003-207	T2003-207	3.75	3.75					2	2	TUBE ASS'Y	6061-T6 0.375 OD x 0.035 W	WW-T-700/6

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WORK ORDER
NO 36585

DART

DESIGN	DRAWN BY	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA
CHECKED	APPROVED	DRAWING NO. D2003
DATE	99.06.08	TITLE 206 CABIN HEATER TUBE ASSEMBLIES NTS SCALE

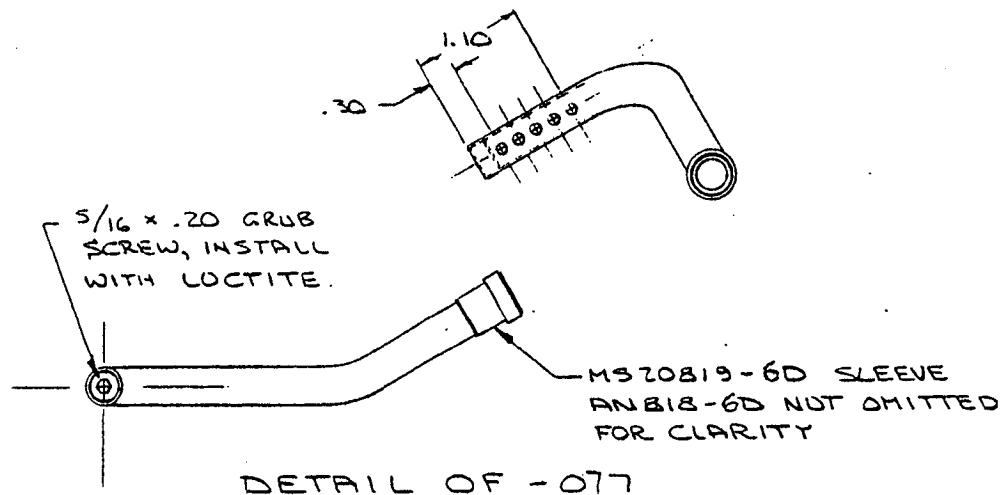
RELEASED
99.06.08 KE**UNDER REVIEW**

06.08.21 CB

Some flat lengths
wrong

Notes:

- (1) USE STRATOFLEX M2650-6 CRINKLE-SOFT HEATSLEEVE.
- (2) TUBING ASSEMBLIES TO BE CUT AND BENT IN ACCORDANCE WITH TEMPLATES.
- (3) TUBES TO BE FLARED 30° TO MATE WITH FITTINGS MADE TO MS33514.
- (4) ENSURE SEAMLESS TUBING IS USED.
- (5) INSTALL HEATSLEEVE OVER ALL TUBES WITH A DESIGNATED LENGTH OF HEATSLEEVE PER THE PARTS LIST.
- (6) 5052 (WW-T-700/4) TUBING MAY BE SUBSTITUTED WHEN 6061 TUBING IS NOT AVAILABLE.
- (7) 0.049 WALL THICKNESS CRES TUBING MAY BE SUBSTITUTED WHEN 0.035 IS NOT AVAILABLE.
- (8) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.



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NO. 36585